Workshop Summary Report: Clean Miles Standard

WORKSHOP HELD ON MARCH 8, 2022

RULEMAKING 21-11-014

April 20, 2022

This report provides a summary of workshop discussion, organized by the agenda topics.

California Public Utilities Commission

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Thanks to report authors:

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Principals in attendance:

Senator Nancy Skinner

Public Utilities Commission President Alice Busching Reynolds and Commissioners Darcie Houck and Cliff Rechtschaffen

California Energy Commission Chair David Hochschild and Commissioner Patty Monahan

California Air Resources Board Division Chief Jennifer Gress

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Executive Summary

On March 8, 2022, the Consumer Protection and Enforcement Division (CPED) of the California Public Utilities Commission (CPUC) held a public workshop on the Clean Miles Standard (CMS), Rulemaking (R.)21-11-014. The all-day workshop included panels, presentations, and breakout group discussions covering funding and financing for zero-emission vehicles, low- and moderate-income drivers and communities, regulatory frameworks, and Greenhouse Gas (GHG) Emissions Reduction Plans. The workshop was an opportunity for moderated discussion on the Clean Miles Standard rulemaking, and anyone interested in the proceeding was invited to participate.

This Workshop Summary Report includes key takeaways from the workshop. These takeaways reflect comments from various panelists and participants and do not necessarily reflect the views of CPED Staff or the Commission itself. As a next step, CPED will draft a Staff Proposal that will address a number of these issues.

Additional materials including the agenda, presentation slides, workshop recording, and workshop materials can be found on CPUC's Clean Miles Standard webpage: https://www.cpuc.ca.gov/regulatory-services/licensing/transportation-licensing-and-analysis-branch/clean-miles-standard.

Key Takeaways

- **Financial Assistance and Incentives.** Incentive programs exist at the federal, state, and regional level for zero-emission vehicle (ZEV) purchases and many, especially at the state level, are targeted to low- and moderate-income households. However, awareness of the programs and how they can be combined and best leveraged may be limited.
  - » Suggestions for new incentive programs include financial assistance for: purchasing used ZEVs leasing or renting ZEVs, increasing access to public charging, and compensating unpaid driver time during charging.
  - » The CA Workforce Development Board, labor groups, and some drivers suggested that any CMS program direct incentives for drivers should be managed but a neutral administrator to increase trust in an impartial and fair implementation.
  - » As in their comments on the CMS Order Instituting Rulemaking, labor groups continued to push for a Driver Assistance Program: funds set aside to support drivers in their transition to ZEVs, which they recommend be controlled and administered by the Commission or other trusted entity to support drivers in the transition to ZEVs.
- **Driver Education and Outreach.** Driver education and outreach will be important to enable driver engagement throughout the CMS rulemaking and implementation process and to ensure drivers are informed of the incentives.

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- » There was consensus among attendees that defining and identifying low- and moderate-income drivers is a challenge. Suggested methods for engaging drivers and/or obtaining information about drivers' income and needs included surveys, focus groups, and a contact opt-in program (managed by the Commission).

- **Relevant Research.** Research studies on TNC drivers and charging infrastructure can inform the conversation on barriers and needs critical to CMS implementation.
  - » A research study from the University of California, Santa Cruz showed that TNC drivers are often working within very tight financial margins, making the high upfront cost of a ZEV purchase difficult.
  - » Research suggests that TNC electric vehicle (EV) drivers will have less access to at-home charging and will rely on public charging, particularly DC fast charging.
- **Charging Infrastructure Investment and Incentives.** Parties raised the need for coordination between the CMS program and the ongoing efforts related to charging infrastructure investment, policy development, and incentive development, especially as they relate to TNC ZEV driver needs.
  - » The California Energy Commission recently announced Charging Access for Reliable On-Demand Transportation Services (CARTS) grant awards for charging infrastructure to support high-mileage on-demand transportation services, with a focus on equity.
  - » The CPUC has an open proceeding to develop investor-owned utility funding and programs around infrastructure for vehicle electrification. In this proceeding and following state legislation under AB 841 (EV Infrastructure Rules), utility-side and customer-side incentives for charging infrastructure are being advanced, but clarity is needed on whether these programs can accommodate the needs of TNC fleets to meet CMS requirements.
- **Regulatory Framework.** The CPUC solicited feedback on GHG Emissions Reduction Plans and the CMS Regulatory Framework. There are still open questions on these topics.
  - » TNCs re-emphasized their position that GHG Emissions Reduction Plans should be flexible and not prescriptive, especially in the early years.
  - » There is general support for a more qualitative review of GHG Emissions Reduction Plans.
  - » Minimal feedback was provided on whether and how the GHG Emissions Reductions Plans should support the Commission's obligations to ensure minimal negative impact on low- and moderate-income drivers. The topics of how to support sustainable land use objectives or to support the goals of clean mobility for low- and moderate-income individuals were also not discussed.

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Next Steps in the CMS Proceeding

As outlined in the Phase 1 Scoping Memo issued on April 8, 2022, the anticipated schedule is as follows.

EVENT	DATE
Phase 1	
Workshop held	March 8, 2022
Scoping Memo	April 2022
Ruling requesting comments on the workshop report	April 2022
Rulings with questions for party comments	Quarter (Q) 2 – Q3 2022
Phase 1 Staff Proposal issued	Q2/Q3 2022
Comments on Staff Proposal	Q3 2022
Phase 1 Proposed Decision	No later than 90 days after submission
Phase 1 Final Decision	No sooner than 30 days after proposed decision

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Background

Clean Miles Standard

The transportation sector accounts for almost 50% of greenhouse gas (GHG) emissions in California when accounting for fuel production, with light-duty vehicles making up over 70% of the transportation sector's direct emissions.[1] With the enactment of SB 1014 (Skinner, 2018) – the Clean Miles Standard and Incentive Program – the California Air Resources Board (CARB) and the California Public Utilities Commission (CPUC) will develop and implement new requirements to curb greenhouse gas emissions as new mobility options grow at a rapid pace.

On May 20, 2021, CARB adopted a regulation to require electrification of ride-hailing companies starting in 2023 with annual targets requiring zero grams of CO_2 greenhouse gas emissions and 90% of passenger miles travelled to be fully electric by 2030. CARB submitted its Final Regulation Order to the Office of Administrative Law on March 8, 2022.

On November 18, 2021, the Commission opened Rulemaking (R.)21-11-014 to implement Senate Bill 1014 - California Clean Miles Standard. Genevieve Shiroma is the assigned Commissioner. The Order Instituting Rulemaking (OIR) requested party comments on 11 preliminarily identified issues to inform a Scoping Memo for the proceeding. Party comments and replies were received by January 7 and January 18, 2022, respectively. A Prehearing Conference was held on February 11, 2022.

On March 8, 2022, the Consumer Protection and Enforcement Division (CPED) staff held a public workshop on the CMS rulemaking. The all-day workshop included panels, presentations, and breakout group discussions covering funding and financing zero-emission vehicles, low- and moderate-income drivers and communities, regulatory framework, and GHG Emissions Reduction Plans. The workshop was an opportunity for open discussion on the Clean Miles Standard, and anyone interested in the proceeding was invited to participate. Key takeaways from the workshop summarized in this report reflect comments from various panelists and participants and do not necessarily reflect the views of CPED Staff or the Commission itself. As a next step, CPED will draft a Staff Proposal that will address a number of these issues.

Workshop Moderators, Panelists, Presenters, and Participants

The workshop was moderated by CPED staff who also supported notetaking and breakout group facilitation. Workshop Principals, panelists, presenters, and participants are summarized in this section.

[1] CARB California Greenhouse Gas Emissions for 2000 to 2019 Trends of Emissions and Other Indicators: https://ww2.arb.ca.gov/ghg-inventory-data

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Principals in Attendance

Principals from the CPUC, California Energy Commission (CEC), the California State Senate, and CARB were invited to participate and provide Opening and Closing Remarks.

- CPUC Commissioner Clifford Rechtschaffen led opening remarks on behalf of Commissioner Genevieve Shiroma, the assigned Commissioner for the CMS proceeding
- California State Senator Nancy Skinner
- CPUC President Alice Busching Reynolds
- CPUC Commissioner Darcie Houck
- CEC Chair David Hochschild
- CEC Commissioner Patty Monahan
- CARB Division Chief Jennifer Gress

Panelists and Presenters

Workshop panelists and presenters are listed below grouped by their respective session topics.

CARB Presentation on CMS

- Gloria Pak, Air Resources Engineer, California Air Resources Board

Funding and Financing for EV Purchase and Use for TNC Services - Panelists

- Raquel Leon, Air Pollution Specialist and light-duty ZEV purchase incentive programs lead, California Air Resources Board
- Shrayas Jatkar, Interagency Policy Specialist for Equity, Climate, and Jobs, CA Workforce Development Board
- Alan Jenn, Research Professor and Assistant Director of the Energy Futures Research Center, UC Davis
- Audrey Neuman, Senior Transportation Electrification Analyst, CPUC Energy Division

Low- and moderate-income (LMI) Drivers and Communities – Presentations

- Dr. Chris Benner, Professor and Director – Institute for Social Transformation, UC Santa Cruz
- Sam Appel, California State Manager for Climate and Labor Policy, BlueGreen Alliance
- Jesus Garcia, Research and Policy Analyst, SEIU Local 721
- Wendy Knight, Research and Policy Coordinator, SEIU Local 721

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- Alvaro Bolainez, Vice President, Rideshare Drivers United

GHG Emissions Reduction Plan and Regulatory Framework for the Clean Miles Standard

- Michael Baltar, CPUC Energy Division, Renewables Portfolio Standard lead
- James McGarry, CPUC Energy Division, Integrated Resource Planning lead

Participants

Invitations to join the workshop were sent to CPUC service lists for (R.)21-11-014 (CMS), (R.)12-12-011 (TNCs and Autonomous Vehicles), (R.)19-02-012 (TNC Access for All), and (R.)18-12-006 (Transportation Electrification). Those who received the invitations were invited to share them broadly for the open, public workshop.

Excluding CPED staff moderating the workshop, there were 155 participants (the total number of unique individuals who logged into the meeting at some point during the day). There were approximately 100 participants for the morning session and around 40-50 for the afternoon sessions.

Based on the meeting records, the breakdown of participants is as follows in Table 1 listed in order of the number of participants.

Table 1: Workshop Participants

Organization Type	Organizations	Total Participants
CPUC	Commissioners, Administrative Law Judges, Consumer Protection and Enforcement Division (CPED), Energy Division, Cal Advocates, Legal	55
Government	CARB; CEC; CA State Senate; CWDB; SCAG; SFCTA; SFMTA; SF City; San Francisco Airport; San Diego Airport; Valley Transit Authority	24
Unknown	Call-in participants	14
Consulting	33 North Energy; Bicker, Castillo, Fairbanks; Caliber Strategies; California Strategies; Community Renewables; Kearns West; Rebel; Resource Insight	10
TNCs	Lyft; Uber	10
Law Firms	Chong Law; Davis Wright Tremaine; Kahn, Soares, Conway; Keyes Fox; Morgan Lewis; Windels Marx	9
Charging Companies	Amply; Flo; FreeWire; Greenlots; Kitu Systems; Power Flex; Stratos Fuel; WeaveGrid	8

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Table 1: Workshop Participants		
Organization Type	Organizations	Total Participants
Energy Industry	CAISO; Liberty Utilities; PG&E; SCE; SDG&E; SMUD	8
University/Researchers	Cal Poly Humboldt; Lawrence Berkeley National Lab; UC Berkeley; UC Davis; UC San Diego; UC Santa Cruz	7
Advocacy	Center for Sustainable Energy; CommLegal; Keep Tahoe Blue; SFCDMA; UCS	5
Labor Groups	Blue Green Alliance; Rideshare Drivers United; SEIU 721	4
Other Private Companies	GM; Green Cab; Honda; Toyota	4
AV Companies	Cruise; Waymo	2
Press/News	IWP News; Wired	2
TNC Drivers	Individual	1

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Workshop Summary by Session

The following sections provide bulleted summaries of the session key takeaways. These takeaways are not attributed to individuals unless necessary. These takeaways reflect comments from various panelists and participants and do not necessarily reflect the views of CPED Staff or the Commission itself. As a next step, CPED will draft a Staff Proposal that will address a number of these issues.

Honored Guest Opening Remarks

Honored Guests from the CPUC, CA State Senate, CEC, and CARB provided opening remarks and joined the morning sessions of the workshop. Full remarks can be viewed on the CMS webpage in the Workshop Recording.

California Air Resources Board Presentation on CMS

CARB provided an overview of the Clean Miles Standard and their own regulation. A copy of the presentation slides is included in Appendix A. Below are the highlights from the Question & Answer session.

- The CARB regulation does not include requirements for EV infrastructure as it is focused on establishing the annual targets for TNCs. To meet those targets, CARB expects that TNCs will need to work closely with agencies working on transportation electrification.
- CARB does not include upstream emissions for TNC compliance, but the staff report did include upstream emissions in the analysis to understand the increasing electricity load to support EVs. Upstream emissions can be challenging to include for compliance as they are subject to rules that are out of control of the TNCs.
- CARB does not specify the strategies that TNCs should use to close the gap in GHG emissions targets (beyond electrifying the fleet). CARB's intent is not to manage how TNCs meet the targets. In CARB's analysis, they found that it would be easier to meet targets if high mileage drivers electrify earlier.
- The Small TNC exemption excludes TNCs with fewer than 5 million vehicle miles traveled (VMT) annually as it was approximately double the VMT of the largest of the small TNCs (i.e., TNCs other than Lyft and Uber). Doubling the number allows the smaller TNCs room for growth before they need to invest in resources to meet the GHG and eVMT targets.
- The CARB regulation is focused on passenger miles traveled (PMT). The intent is not to impact the mobility needs of passengers but to increase efficiency and improve relative VMT (relative as it compares to the 2018 baseline).
- Under SB 1014, the scope was set to passenger ride-hailing services. Food and delivery services are outside of the scope for this program.

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- In CARB regulations, eVMT targets only use Period 3 miles. For GHG targets, they use Periods 1, 2, and 3 miles.[2]
- The intent for optional credits for bike and sidewalk infrastructure is that TNCs can earn credits for the life of the project. They can begin earning credits when the investment has been made and verified.

Funding and Financing Expert Panel

The Funding and Financing Expert Panel answered structured questions from a CPED moderator. The purpose of this panel was to facilitate a common understanding of existing and potential funding and financing programs to support ZEV purchases for ride-hailing services, and to understand how they might apply to low- and moderate-income drivers. Included below is a summary of the main points grouped by topic. Where applicable, we provide links to referenced sites and reports.

Driver Concerns

- Vehicle-based: range anxiety and EV battery wear and tear especially for high-mileage drivers
- Changes in driver time: unpaid time, longer charging time, pooling benefits lessened due to EVs' smaller size
  - » For refueling time, it was noted that the charging infrastructure development has been heavily focused on serving battery EVs and less so on fuel cell vehicles, which may be able to refuel faster.
- Driver skepticism: Drivers have had concerns with TNC-run ZEV campaigns and part-time drivers are nervous that the ZEV transition will be harder for them.
- The suggestion for developing a Driver Assistance Program to help cover the costs of transitioning to a ZEV was introduced for the first time. As a concept, a Driver Assistance Program was discussed as follows:
  - » A Driver Assistance Program would be useful as it aligns the funding mechanism with the activity – miles driven, or trips provided.
  - » A per-mile or per-trip fee is a hot topic in other transportation policy areas (e.g., replacing fuel tax for a VMT tax), so there is a reference for this idea. There is a challenge with tracking miles for other per-mile fee implementations, but for CMS it might be easier as TNCs can already track miles on their platform.
  - » Since the CPUC already oversees the TNC Access for All program funds, it can be used as a model for a CMS related Driver Assistance Program that may be managed by the CPUC.

[2] Commission Decision D.14-11-043 defined Periods 1, 2, and 3. Period 1 is: App open – waiting for a match. Period 2 is: Match accepted – but passenger not yet picked up (i.e., driver is on his/her way to pick up the passenger). Period 3 is: Passenger in the vehicle and until the passenger safely exits vehicle.

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    » Participants named a broader need to address driver employment status to create a more efficient CMS approach and program implementation.

- Incentive programs can be hard to keep track of, and ensuring drivers have knowledge of incentives is critical to having a successful program. It will remain important to make sure that drivers are aware of available incentives.

Incentive Programs

- CARB has a suite of ZEV purchase programs, many focused on LMI individuals/households (households whose income is less than or equal to 400% of the federal poverty level): Clean Vehicle Rebate Project (CVRP);[3] Clean Vehicle Assistance Program (reopening soon);[4] Clean Cars 4 All (for participating Air Districts);[5] CARB's Drive Clean Resource Website.[6]
- The CPUC's transportation electrification efforts include electricity rates and cost of refueling, charging infrastructure deployment and incentives, vehicle-grid integration policy, planning, and pilots, and program evaluation and interagency coordination. The CPUC does not regulate the resale of electricity from charging stations, but the investor-owned utilities (IOUs) have various electric rates designed for EV charging use cases. A recent CPUC Staff Proposal on Transportation Electrification details a proposal on the future of IOU funding for transportation electrification.[7] Some of the existing vehicle and charging infrastructure incentives and programs include:
    » Vehicle-related: California Clean Fuel Reward (no income or location restrictions),[8] Second-hand Vehicle Rebate Programs funded by the Low Carbon Fuel Standard (LCFS).

    » Infrastructure-related: Utility-side of meter costs covered by utility ratepayers; customer-side of meter incentives for light duty vehicles including rebates for multi-unit dwellings (MUDs), workplaces, and some public locations; public DCFC; and public charging at schools and parks.

[3] Clean Vehicle Rebate Program: https://cleanvehiclerebate.org/en

[4] Clean Vehicle Assistance Program: https://cleanvehiclegrants.org/

[5] Clean Cars 4 All: https://ww2.arb.ca.gov/our-work/programs/clean-cars-4-all

[6] CARB's Drive Clean Resource Website: https://driveclean.ca.gov/

[7] CPUC Energy Division Staff Proposal on Transportation Electrification: https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=453953154

[8] California Clean Fuel Reward: https://www.cleanfuelreward.com/

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  - » Customer-side Utility Programs include offerings from Pacific Gas & Electric (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE).[9] Another source for program information is Access Clean California.[10]

- Additional Incentives: Community Choice Aggregators (CCAs) offer incentives for expanding EV infrastructure. Regional Air Districts have also offered incentives for EV charging.

- California Energy Commission (CEC) Programs: The CEC recently announced proposed awards of $16.6 M for Charging Access for Reliable On-Demand Transportation Services (CARTS) for 10 projects across the state.[11] The projects selected have an emphasis on equity.

  - » ZEVs used in TNC service are less than 0.5% of statewide ZEVs but accounted for 35% of non-Tesla public charging on an energy basis in the state. Overnight charging needs/availability is not understood for TNC drivers, and the amount of public charging needed will depend on at-home charging availability.

  - » TNC drivers are using the public charging infrastructure and there is an opportunity to align the charging at these stations with renewables that are available on the grid to get a win-win scenario for all, assuming the electricity pricing is right for drivers.

  - » The CEC has over $300 million allocated for light-duty vehicle charging. The Governor is proposing $300 million targeted for low-income households to install EV charging as well as $600 million for primarily DC fast charging.

Challenges and Opportunities of Relying on Existing Incentives

- Federal tax credit incentive for an EV purchase can be seen as a regressive incentive as one must have a tax liability that is large enough to claim the credit, which can be a barrier for LMI individuals.

- On-the-hood incentives (available at the time of purchase) are often pushed as an effective option. Research Professor Alan Jenn cited studies that have found that, for the same amount of money, you can see double the efficacy for on-the-hood incentives. There is movement towards more incentives of this type, but there remain challenges with income verification requirements that can act as an additional barrier.

[9] PG&E: https://www.pge.com/en_US/residential/solar-and-vehicles/options/clean-vehicles/electric/charger-options/electric-vehicles-charging-pge.page; SDG&E: https://www.sdge.com/residential/electric-vehicles/power-your-drive/public-charging; SCE: https://www.sce.com/residential/electric-vehicles/charging-ev; PG&E Savings Calculator: https://ev.pge.com/.

[10] Access Clean California: https://accesscleanca.org/

[11] CEC CARTS Proposed Awards: https://www.energy.ca.gov/sites/default/files/2022-02/GFO-21-601_NOPA_Cover_Letter_2022-02-14_ADA.pdf

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- Research Professor Alan Jenn cited a couple of studies that have shown that there is an increase in the adoption of ZEVs through a vehicle replacement program like Clean Cars 4 All. If this program is expanded, it could be a good way to increase ZEV adoption.
- There is value in reviewing how LCFS distributions can be used to further incentivize ZEV usage in TNCs, especially for the high-mileage drivers.
- Education and outreach to the individuals who can benefit from an incentive program, increasing awareness through knowledge building, is an important part to ensuring an effective program.
- CARB hopes to continue to utilize the Greenhouse Gas Reduction Fund (GGRF) for future ZEV incentive programs for low- and moderate-income individuals. GGRF is the cap-and-trade program that sets a statewide limit on GHG emission sources and establishes a price signal for pushing towards investment in cleaner sources.
  - » The states portion of cap-and-trade proceeds are deposited into the GGRF to support statewide programs that reduce GHG emissions especially in disadvantaged communities. All programs mentioned by CARB are funded through GGRF.
- Panelists are not aware of studies that look at how TNC investments impact drivers and/or consumers. Any TNC investment could get passed on to consumers as part of their business. The passing on of costs can be partially avoided by public subsidization, but that means costs are being supported by the broader society.

Blue Sky ideas to ensure minimal negative impact to LMI drivers

- There is no silver bullet to equity. To ensure minimal impact, programs should consider outreach components as incentives won't work on their own if drivers aren't aware of them. CPUC can leverage resources like the Environmental Social Justice Action Plan to inform this proceeding and build a sufficient record.[12] Partnerships with community groups could be a way to have more effective outreach.
- TNC EV drivers would benefit from better battery warranties and battery swapping programs (which would help them to avoid longer unpaid charging time).
- As summarized during this panel, there is an unprecedented amount of state investment in ZEVs and charging infrastructure. The public money is not unlimited, and TNCs will also need to provide support to expand ZEV usage in an equitable way.
- A Driver Assistance Program run by a state agency or other trusted entity would help to alleviate driver skepticism with incentives offered directly through TNCs. Drivers have an interest and enthusiasm about transitioning to ZEVs.

[12] CPUC Environmental Social Justice Action Plan:
https://www.cpuc.ca.gov/ESJactionplan/?msclkid=91fd4d1faaf211ec86a2cb14cf228b4e

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- Increased incentives for used ZEV purchases would be beneficial for low- and moderate-income drivers. A note on incentives: there are no current ZEV leasing incentive opportunities through the state.
- Targeted ride-and-drive events to demonstrate how ZEVs work for TNC drivers can be an effective outreach effort and could be an opportunity for TNC partnership.

Low- and Moderate-Income Drivers and Communities: Presentations

CPUC invited speakers for this session from labor groups and academics that conduct research related to TNC drivers. The purpose of this session was to develop a deeper collective understanding of low- and moderate-income drivers' perspectives on CMS. Presentation slides and additional material are available in in Appendix A. Key takeaways are also included below.

Driver Demographics & Economic Circumstances

- Determining who is driving for TNCs with accurate data is difficult. A majority of trips, miles, and earnings are from a small percentage of drivers who do the most driving.
- A Study of TNC drivers in San Francisco sampled drivers based on hours worked using information on when and where rides are happening most frequently within the city.[13]
- Difficult economic circumstances are prevalent amongst drivers. Most drivers cannot bear the costs of new vehicles.
- For the CMS program, CPUC should consider targeted outreach to marginalized populations, especially immigrants and those with limited English proficiency.
- Overall, there is need for better data that connects earnings, hours, and VMT to understand real driver expenses.

Driver Concerns from Labor Groups

BlueGreen Alliance, SEIU Local 721, and Rideshare Drivers United provided the driver perspective. Driver and labor group concerns are summarized in this section.

- Driver Assistance Program
  - » TNCs should bear the cost of transitioning to ZEVs, not the drivers.

[13] University of California Santa Cruz TNC Driver Study: https://transform.ucsc.edu/on-demand-and-on-the-edge/

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   - » TNCs should deposit a per-trip (or mile) fee. Union of Concerned Scientists estimated that $0.43/trip or $0.04/mile is sufficient to cover the cost of transition - ZEVs, charging infrastructure, and other associated costs.
   - » The program should be controlled and administered by the Commission or other trusted entity (proposed by Rideshare Drivers United). The TNC Access for All program is funded by the TNCs and run by the Commission and could be a model for the Driver Assistance Program.
   - » It is important that CPUC receive data from the companies to help bring transparency to the program.
- Drivers and labor groups expressed the need for any incentive programs related to CMS to be managed by a neutral administrator to ensure trust in an impartial program implementation. Drivers and labor groups provided examples of driver experiences with previous ZEV or other related incentive programs.
   - » TNC-offered EV rental programs were challenging for TNC drivers as they included weekly or monthly fees and driver requirements for the number of trips given and driver rating. Tying eligibility to a rating is problematic for drivers because the ever-changing TNC policies can change quickly and are often outside of driver control, which can negatively impact driver ratings. Additionally, some programs have non-compete clauses for participating in the rental programs.
   - » Another example of a TNC program that drivers felt was not in their best interest was Uber's Xchange leasing program, which drivers found to be predatory in nature.
   - » The existing Green Futures program where riders can pay an $1 for a "green" ride has been found by drivers to not result in shared payment as promised. Drivers are supposed to receive $0.50 per trip and the company receives the remaining $0.50 for the Green Futures program. Drivers have found that a majority of investments made with the fee go to corporate partners like Hertz and charging programs.
   - » For Proposition 22, the "benefits" were not as drivers expected. Now, only 10% of drivers qualify for the benefits, but the fee is charged (CA driver benefit fee) on all trips.
   - » Currently, gas prices are high, Uber is encouraging drivers to rent EVs from Hertz instead of giving them a subsidy to help cover extra costs. Drivers who have already purchased a car would need to continue to make their monthly car payment on the car that they own in addition to paying for an EV rental from Hertz.
- Driver Concerns
   - » Despite driver interest in ZEVs, models available on the market are not conducive to ride-hailing because of the high upfront cost, charging time, and smaller size of the vehicles.
   - » Drivers support the goals of CMS, but drivers need to be protected and should not lose their income because they cannot make the transition to a ZEV.

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- Driver Engagement Suggestions
  - » The CPUC should consider conducting a series of focus groups where drivers can provide feedback in a forum where they will feel comfortable sharing openly without fear of retaliation. To engage the highest number of drivers, focus groups should be held virtually.
  - » Consider providing drivers with the ability to opt-in to sharing their information with the Commission so that they can actively engage with the Commission staff.
  - » The CPUC should consider developing a set of informational material about the program as well as the vehicles available and be able to answer questions about at home charging.
- Rideshare Drivers United's Recommended Principles for TNC Fleet Conversion to EVs (taken from the Rideshare Drivers United provided principles document)[14]
  - » Because of the high cost of vehicles and the low pay of drivers, Rideshare Drivers United believe that a Driver Assistance Fund must be set up to incentivize and pay for conversion, and that this fund must be independently controlled by a government agency. Rideshare Drivers United believe this is the only way to hold accountable how the money is dispersed and that it benefits the people who pay for the fleet.
  - » Drivers need support for both the purchase of and/or the rental of EVs for TNCs.
  - » For drivers purchasing vehicles, if their gas or hybrid vehicle is still in use, the PUC should incentivize an upgrade before a driver would normally purchase a new car.
  - » Any subsidy should prioritize full-time drivers but all regular drivers should have access to assistance with EV purchases or rentals.
  - » To ensure TNCs meet the CMS, eligibility for purchase assistance would be drivers who have worked for at least 6 solid months on a regular basis.
  - » Financial help should be given for drivers who would need support with neighborhood or home rapid charging stations.
  - » Companies should not be allowed to rent electric vehicles to drivers for more money than is charged for other gas or hybrid cars. The incentives provided by PUC for car rentals would then essentially be subsidizing the companies and would undermine the intent of the policies.
  - » As policies are developed to implement these principles, an open process that includes drivers and our organizations is needed to have the best policies for quick and impactful implementation.

[14] Rideshare Drivers United's Recommended Principles for TNC Fleet Conversion to EVs: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/consumer-protection-and-enforcement-division/documents/tlab/clean-miles-standard/cms-workshop-materials.pdf

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Honored Guests Closing Remarks

Honored guests from CPUC, CEC, and CARB highlighted the importance of the session on low- and moderate-income drivers as the Commission does not often have the opportunity to hear directly from drivers. Their input is essential to implementing a fair and equitable program. Full remarks can be viewed on the CMS webpage in the Workshop Recording.

Low- and Moderate- Income Drivers and Communities: Breakout Groups

A series of breakout group discussions were facilitated using specific topical questions for 25 to 35 minutes. These smaller groups were intended to spur conversation amongst the workshop participants.

- Question: How should the Commission define and identify low- and moderate-income (LMI) drivers and individuals for the purposes of CMS implementation and monitoring of impact? There were a lot of specific suggestions in the OIR comments, but not a lot of agreement. Please expand on why your proposed definition offers the best opportunity for monitoring impacts on low- and moderate-income drivers.
    - There is a role for CalEnviroScreen and other geographically based identifiers, but these might not be specific enough for identifying individual TNC drivers.
    - Drivers may live and drive in different locations (e.g., Modesto versus San Francisco); how do existing methods for identifying drivers account for this?
    - Define LMI drivers/individuals consistent with existing definitions or thresholds, including:
        - CARB's ZEV incentive programs have an applicability that is defined by households at or below 400% of the federal poverty level.
        - Department of Housing Statistics defines low income as 80% of Annual Median Income – per AB 1550.
    - The Commission should collect information from drivers in an opt-in manner or by survey. Asking for voluntary reporting from drivers could add to the understanding of income and demographics of TNC drivers.
- Question: How should the Commission "ensure minimal negative impact on low-income and moderate-income drivers"? What part should TNCs play? What financial supports or incentives have TNCs provided to drivers in the past, and what are lessons learned from those programs? What strategies do TNC drivers hope to see in CMS implementation to minimize negative impacts on low- and moderate-income drivers?
    - When trying to ensure minimal negative impact by utilizing incentives, there is a need to be cautious with any income verification requirement for incentives as it can act as another barrier.

(END OF ATTACHMENT)

   - The upfront cost of purchasing an ZEV is an important issue, but incentives exist to address that burden. Making sure drivers are aware of the incentives can help to make them more effective.
   - The ZEVs currently available in the market should meet the needs of TNC drivers. To alleviate driver concerns with the vehicles (size, features, accessibility, etc.), those concerns should be addressed directly by demonstrating the technology available.
   - Consider TNC drivers that don't have access to home charging. Many drivers will need to use public charging (at typically higher rates for charging than at home) and spend time charging without pay. This is a disadvantage for drivers living in multi-unit dwellings or renters.
   - Consider weekly/monthly ZEV leasing as a compliment to other purchase options. ZEV ownership is still low for LMI individuals, and there is still a need to understand the trade-offs between ownership and leasing.
   - It is possible that vehicle scrap/replacement programs might not be viable because TNC drivers are not eligible.
   - The low- and moderate-income drivers and communities session presentations spelled out principles and pragmatic solutions to ensure that drivers are not overburdened with the cost of the transition.
- Question: What is the impact of unpaid time on TNC drivers' compensation, including charging time, and how should the Commission consider this impact in the context of CMS?
   - Time not spent transporting passengers is unpaid for drivers and furthers the need for a Driver Assistance Program.
   - Charging time becomes more of an issue in rural areas where finding charging could be an issue. Having at home charging helps to avoid some of the charging issues.
   - When considering the unpaid charging time, note that the time to charge will vary by charger type – Level 2 versus DC fast charging.
   - Consider the benefits of battery swapping (which avoids the charging time) for the TNC application.
   - Consider the possibility of subsidies for public charging (given that TNC drivers will likely frequent these stations). Current programs to subsidize public charging are limited in scale/scope.
   - Given the many unknowns around driver behavior, it is recommended that more surveys be undertaken to understand unpaid time (on average) due to charging time.
   - Resources referenced:
      - Rocky Mountain Institute report on electrifying ride-hailing[15]

[15] Rocky Mountain Institute report on EV Charging for All: https://rmi.org/insight/ev-charging-for-all/

(END OF ATTACHMENT)

- Question: What role should your organization, Community Based Organizations, or academics play in supporting ongoing engagement and understanding of the impacts on LMI drivers, such as through surveys, working groups, or another forum?
  - » Outreach suggestions included:
    - o Outreach works better when done in partnership. The Commission should co-organize meetings with other trusted groups.
    - o Driver outreach with language services could be helpful.
    - o Participants suggest conducting focus groups with drivers – these groups should not be held publicly to have productive conversation with the drivers.
    - o TNC noted their driver advisory council as a driver resource.
    - o General recommendation to hear independent driver voices as well.
  - » Participants also noted the need for data collection:
    - o There is a need to gather more income data, which could be collected by independent organizations.
    - o There is need for data on charging time. Currently, drivers have an issue with being penalized when they cancel rides due to insufficient charge/battery with their EV.
- Question: How do drivers approach accessing an EV for use on a TNC platform? What additional resources or information are needed?
  - » Drivers should be able to access a list of resources/website to get more information.
  - » To get more ZEV drivers on TNC platforms, there is a need to eliminate the financial burdens.
- Question: How can the Commission and CPUC Staff engage with TNC drivers in this proceeding and during program implementation? What types of outreach and engagement will be effective for TNC drivers?
  - » Target outreach to more segments of the TNC driver population.
  - » There is a lack of driver representation in the workshop and panels. The Commission needs to engage more with groups of drivers to obtain their perspective. Specifically, around issues of education, access to resources, and the reality of current charging capabilities.
  - » Drivers can be directly engaged. Still need to figure out the best way to get in touch with them. Can we access them through representatives? Commission can also look to how CARB and CBOs engage with LMI populations.

(END OF ATTACHMENT)

GHG Emissions Reduction Plans and Regulatory Framework: Presentations

Regulatory Analysts from the CPUC Energy Division presented on CPUC programs on Renewables Portfolio Standard (RPS) and Integrated Resource Planning (IRP), which were cited in the (R.)21-11-014 Order Instituting Rulemaking. A summary of the programs is included below, and presentation slides are available in Appendix A.

- RPS and IRP are distinct programs within the CPUC Energy Division through which electric load-serving entities are required to meet specific goals related to their services: renewable energy percentage for RPS and reduction of GHG emissions and maintenance of system reliability for IRP.
- Although the subject matter is different than CMS, the narrative/qualitative submission component of the programs--annual Procurement Plan for RPS and Narrative Template for IRP--could serve as potential models for the CMS GHG Emissions Reduction Plans, which participants were invited to discuss at the Workshop.
- RPS Procurement Plan review is checked against the Assigned Commissioner Ruling (ACR) for that year and allows for modifications based on the initial review. Plans are accepted or designated as requiring modifications through Proposed Decisions.
- IRP Narrative Template review utilizes a qualitative scorecard to ensure the load-serving entities have adequately satisfied the filing requirements. The scoring options are "exemplary", "adequate", or "deficient". If there are deficient scores, the submitter is required to re-submit.
- Both programs also include quantitative, compliance-oriented submission requirements.

GHG Emissions Reductions Plans: Breakout Groups

A series of breakout group discussions were facilitated using specific topical questions for 25 to 35 minutes. These smaller groups were intended to spur conversation amongst the workshop participants.

- Question: What are the potential parallel elements from the IRP and RPS Plans that could be used to inform the development of the GHG Emissions Reduction Plans?
  - » RPS gives load serving entities the ability to experiment earlier in the process and the staff can revise the reporting template as needed. This could be a useful model for CMS.
  - » For RPS, generally when reviewing plans, staff want to be confident that investor-owned utilities and load serving entities have a plan that is generally achievable to minimize risk of failure (i.e., not achieving the targets).
  - » For RPS plans, the CPUC requires 50%-75% of parties to revise plans after they are submitted, but the revisions tend to be minor changes. RPS plans are not prescriptive. Some deviation from a plan is typically not an issue.

(END OF ATTACHMENT)

  - » The iterative nature of the IRP review process could have applications to CMS as it allows for fine tuning and a collaborative back and forth.
  - » Staff notes that the IRP has parallels to the CMS program in the following ways:
    - o The goal of the IRP program is to reduce GHG emissions (and maintain system reliability) to ensure that the state can reach its GHG emissions reduction goals at least cost while maintaining reliability.
    - o Load serving entities are required to submit filings through which the CPUC and other stakeholders can better understand each load serving entity's plan to meet state goals.
    - o IRP filings include: 1) Narrative Template that describes the load serving entities' plans and any analysis; 2) Resource Data Template that details the load serving entities planned and existing contracting data; and 3) Clean System Power Calculator that is used to estimate GHG and criteria pollutant emissions for the load serving entities' portfolios and to check that they will achieve the GHG reduction benchmarks.
    - o IRP filing components have different review elements depending on their structure. For the Narrative Template staff utilize a qualitative scorecard to ensure the load serving entities have adequately satisfied the filing requirements. The scoring options are "exemplary", "adequate", or "deficient". If there are deficient scores, the submitter is required to re-submit. For the Resource Data Template and Clean System Power Calculator staff conduct more quantitative, automated reviews with tools built for the program review process. When errors are found or targets are found not be met, load serving entities may re-submit.
    - o Clear templates, instructions, and template evaluations are key for making the process run smoothly for both CPUC staff and the load serving entities.

- Question: Are there are any elements from the GHG Emissions Reduction Plan as described in the OIR that are potentially missing? Are there elements that could be addressed in a later phase?
  - » For the GHG Emissions Reduction Plans, there needs to be focus on meeting targets with no or negligible impact on LMI drivers.
  - » Driver education and outreach is an issue that needs to be addressed within the GHG Emissions Reduction Plans.
  - » Additional suggestions for plan elements include:
    - o Consider the secondary impacts from the grid to support the added charging infrastructure.
    - o Consider unintended consequences like increases in VMT, LMI impacts, and congestion.

- Question: How should the Commission balance obtaining adequate GHG Emissions Reduction Plans without being too prescriptive when creating the plan template?
  - » RPS does include a structure for their plans as part of the Assigned Commissioner Ruling, but as described in a previous response, is not too prescriptive.

(END OF ATTACHMENT)

» In earlier years, the plan template should be more flexible to allow TNCs to be more creative. The Commission can be more prescriptive on the outcomes rather than on how the companies get there (achieve the targets).

» To evaluate how the companies do in future years, there is need to understand the starting point (2018 baseline) and what companies are currently doing to electrify their services.

» TNCs would find it helpful if the Commission shared outside data resources, like household income, that TNCs can utilize. Are there other agencies that have this information?

» Consider how the Commission will calculate some of the potential plan elements. For example, are emissions from transit-TNC trips more or less than all-TNC trips?

- Question: What strategies do regulated entities anticipate including in their GHG Emissions Reduction Plans? How might these differ between TNCs and AV charter-party carriers (TCPs)?

» TNCs and AV TCPs have different operations, and therefore will have different plans. The plan template/requirements should be flexible enough to apply to both types.

» There is interest in the CMS optional credits and access to transit. This type of credit could lead to more experimentation from TNCs with drop-offs at transit stations and connections with public transit systems.

» TNC expressed wanting to share in the Low Carbon Fuel Standard credit programs. Decreasing the carbon intensity of fuels is part of the CMS program, and it is a good opportunity to leverage existing partnerships with CARB to achieve CARB/CPUC goals.

» Uber stated that it currently produces a transparent report on their efforts for reducing emissions in the United States, Canada, and Europe, which is publicly available on their website.[16]

» Can the Commission review what has been done before with shuttles and other regulated entities - how were they measured before and how are they currently reporting deadheading? There could be lessons learned about what works and what hasn't.

Regulatory Framework: Breakout Groups

A series of breakout group discussions were facilitated using specific topical questions for 25 to 35 minutes. These smaller groups were intended to spur conversation amongst the workshop participants.

- Question: Both the IRP and RPS contain qualitative review for the LSEs' submitted plans. What are the potential challenges with a qualitative review? What are the potential benefits?

[16] Uber Climate Assessment and Performance Report: https://www.uber.com/us/en/about/reports/sustainability-report/

(END OF ATTACHMENT)

- » If the ACR says "must" then that has a higher standard for review than if the ACR says "should." The guiding standard is what the ACR says in that year, and this evolves year after year.
- » As a starting point, evaluate if the plan responds to the requested information. Then, conduct some evaluation of whether information is reasonable at a high or more detailed level. Recommendation that plans acceptable by the Commission be based on completeness and viability.
- » The Commission should have some space to elaborate on things that were deficient or exemplary to allow for the variability of what will be included in the plans. Also, allow for flexibility in the evaluation of the plans.
- » If there are only two reports submitted (i.e., Lyft's and Uber's), a qualitative review may be reasonable.
- » If the Commission wants a simple review, then keep the plan requirements simple as well.

- Question: What should the structure for submitting, reviewing, and approving plans look like? Should any elements of GHG Emissions Reduction Plan be considered by the Commission as opposed to Staff?
  - » Either the plan or compliance reports should be looked at by the Commission, but it is not clear which one it should be right now. If a plan is open-ended then it likely doesn't lend itself to quantitative review.
  - » Consider what confidential data will be requested and what needs to be shared.
  - » Overall, a literature review of quantification methods could be helpful. See the City of Los Angeles Department of Transportation (LADOT) VMT calculator as a model.[17]
- Question: Are there quantitative tools available to assess the viability of strategies included in a regulated entity's GHG Emissions Reduction Plan? What are the pros and cons of using a quantitative evaluation tool?
  - » From a TNC perspective there are certain quantitative elements that can be tracked (deadhead miles, vehicle occupancy, and fuel efficiency), but there are limitations for each category on what can be reported quantitatively.
  - » Quantitative elements might be more objective while qualitative would be more subjective.
- Question: Considering the IRP, RPS, or other models, what are some the benefits and challenges with different types of enforcement mechanisms that the Commission should consider?
  - » Any citations from CPUC should ensure the penalty is not passed down to the driver.

[17] City of Los Angeles Department of Transportation VMT Calculator: https://ladot.lacity.org/businesses/development-review#transportation-assessment

(END OF ATTACHMENT)

Outcomes & Next Steps

As outlined in the Phase 1 Scoping Memo issued on April 8, 2022, the anticipated schedule is as follows.

EVENT	DATE
Phase 1	
Workshop held	March 8, 2022
Scoping Memo	April 2022
Ruling requesting comments on the workshop report	April 2022
Rulings with questions for party comments	Quarter (Q) 2 – Q3 2022
Phase 1 Staff Proposal issued	Q2/Q3 2022
Comments on Staff Proposal	Q3 2022
Phase 1 Proposed Decision	No later than 90 days after submission
Phase 1 Final Decision	No sooner than 30 days after proposed decision

(END OF ATTACHMENT)

Appendices

Appendix A: Workshop Presentation Slides

(END OF ATTACHMENT)

R.21-11-014:
Clean Miles Standard Workshop

March 8, 2022

Facilitated by:
Consumer Protection and Enforcement Division (CPED)
Terra Curtis, Transportation Policy Supervisor
Stephanie Seki, Lead Analyst

California Public
Utilities Commission

(END OF ATTACHMENT)

9:00 – 9:30am

Opening Remarks from Today's Honored Guests

CPUC Commissioner Rechtschaffen
on behalf of CPUC Assigned Commissioner Shiroma

Senator Nancy Skinner
CPUC President Reynolds and Commissioner Houck
CEC Chair Hochschild and Commissioner Monahan
CARB Division Chief Jennifer Gress

(END OF ATTACHMENT)

9:30 – 9:35am

Workshop Guidelines

- The purpose of the workshop is to discuss the issues in this proceeding and gain understanding of stakeholders' perspectives and concerns.
- We will have a mix of presentations, Q&A sessions, and breakout group discussion. Please keep discussions related to the topic and questions being discussed.
- Staff will be monitoring the chat and raised hands feature if questions arise throughout the workshop.
- Please add any comments that you are not able to verbalize into the chat, which will be saved. If you need closed captioning, please click the "cc" icon
- Workshop Summary Report will be filed in the proceeding and open for comment.

(END OF ATTACHMENT)

9:30 – 9:35am

Today's Agenda

California Public Utilities Commission

(END OF ATTACHMENT)

9:30 – 9:35am

Today's Agenda

Item	Session Description	Time
1	Opening Remarks from Honored Guests	9:00 – 9:30 AM
2	Introductory Presentations	9:30 – 10:30 AM
3	Funding and Financing Expert Panel with Q&A	10:30 – 11:30 AM
4	Low- and Moderate-Income (LMI) Drivers and Communities Session – Presentations from driver representatives	11:30 – 12:05 PM
5	Closing Remarks from Honored Guests	12:05 – 12:10 PM
6	Lunch Break	12:10 – 1:00 PM
7	Low- and Moderate-Income (LMI) Drivers and Communities Session – Breakout groups discussion session	1:00 – 2:00 PM
8	GHG Reduction Plans & Regulatory Framework Session [PART A]	2:00 – 3:10 PM
9	Break	3:10 – 3:25 PM
10	GHG Reduction Plans & Regulatory Framework Session [PART B]	3:25 – 4:15 PM
11	Review Schedule & Adjourn	4:15 – 4:30 PM

(END OF ATTACHMENT)

9:35 – 10:30am

CARB’s Clean Miles Standard Regulation

California Air Resources Board

Gloria Pak, Air Resources Engineer

California Public Utilities Commission

(END OF ATTACHMENT)

CALIFORNIA
AIR RESOURCES BOARD

Clean Miles Standard Regulation

CPUC Workshop

March 8, 2022

CARB

(END OF ATTACHMENT)

Outline

Background on SB 1014

2018 Base Year Activity

Electrification and GHG Targets

Optional GHG Credits

Exemption and Flexibilities

CARB’s Role Going Forward

CARB

(END OF ATTACHMENT)

Senate Bill 1014
Clean Miles Standard

Applicable to:

- Passenger service by transportation network companies (TNCs)
- TNC service by autonomous vehicle (AV) fleets

Key goals:

- Reduce GHG emissions
- Increase electrification
- VMT reduction

CARB

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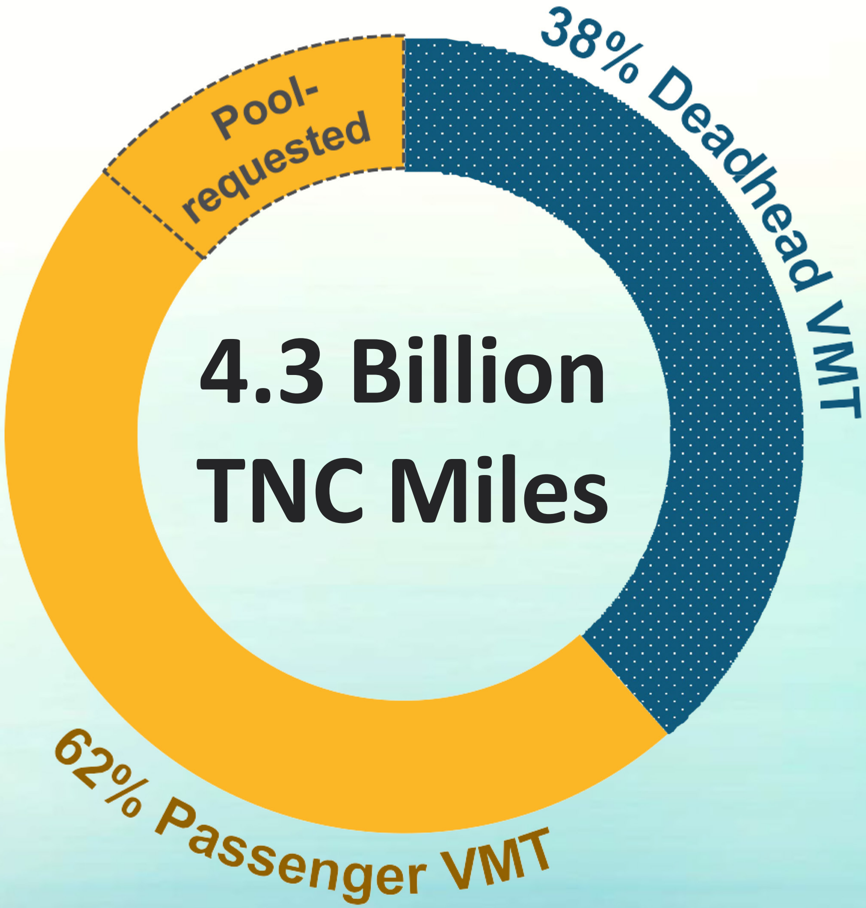
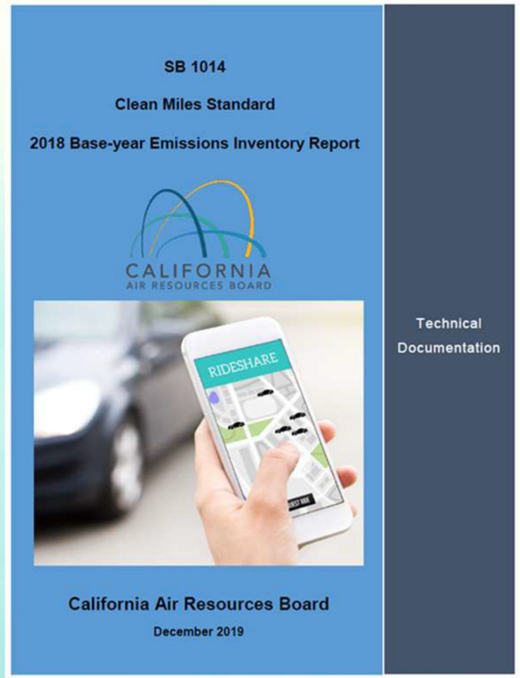
2018 Base Year Activity

1.25% of CA's light-duty VMT was associated with TNCs





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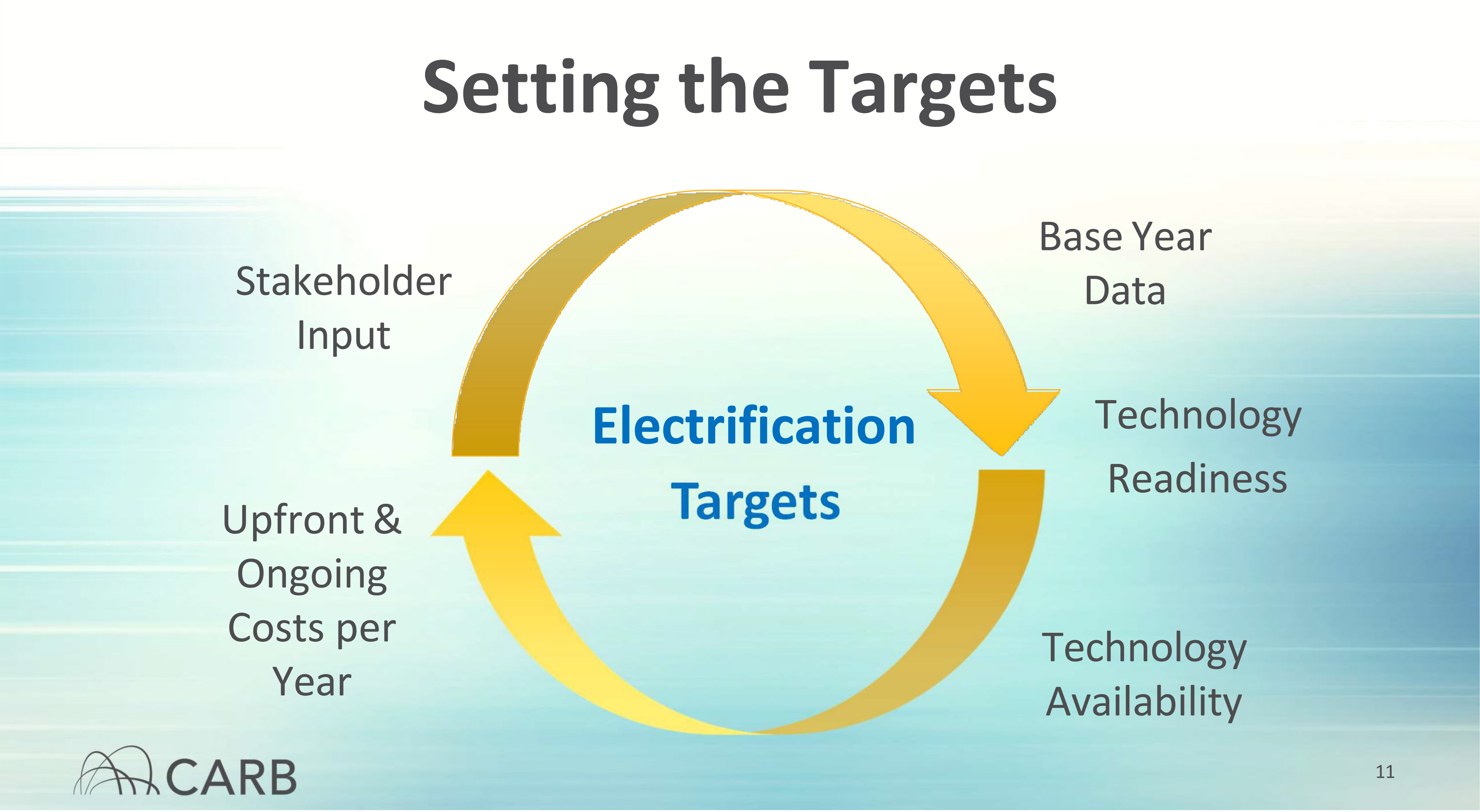

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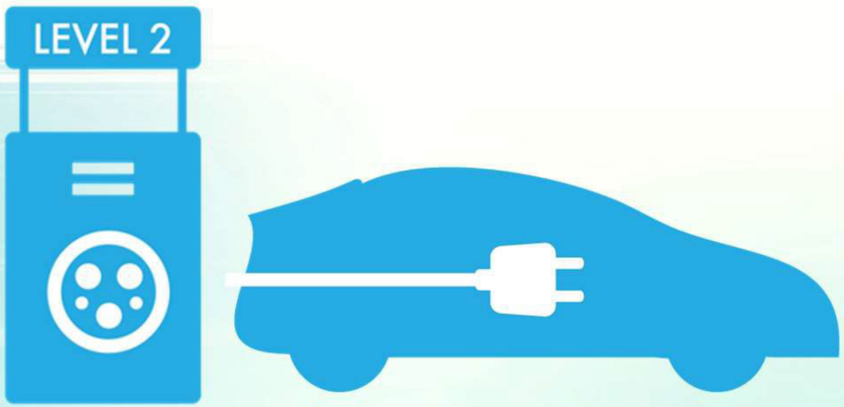
Electrification Targets



Electric vehicle miles traveled (eVMT)

Fraction of vehicle miles traveled by battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV)

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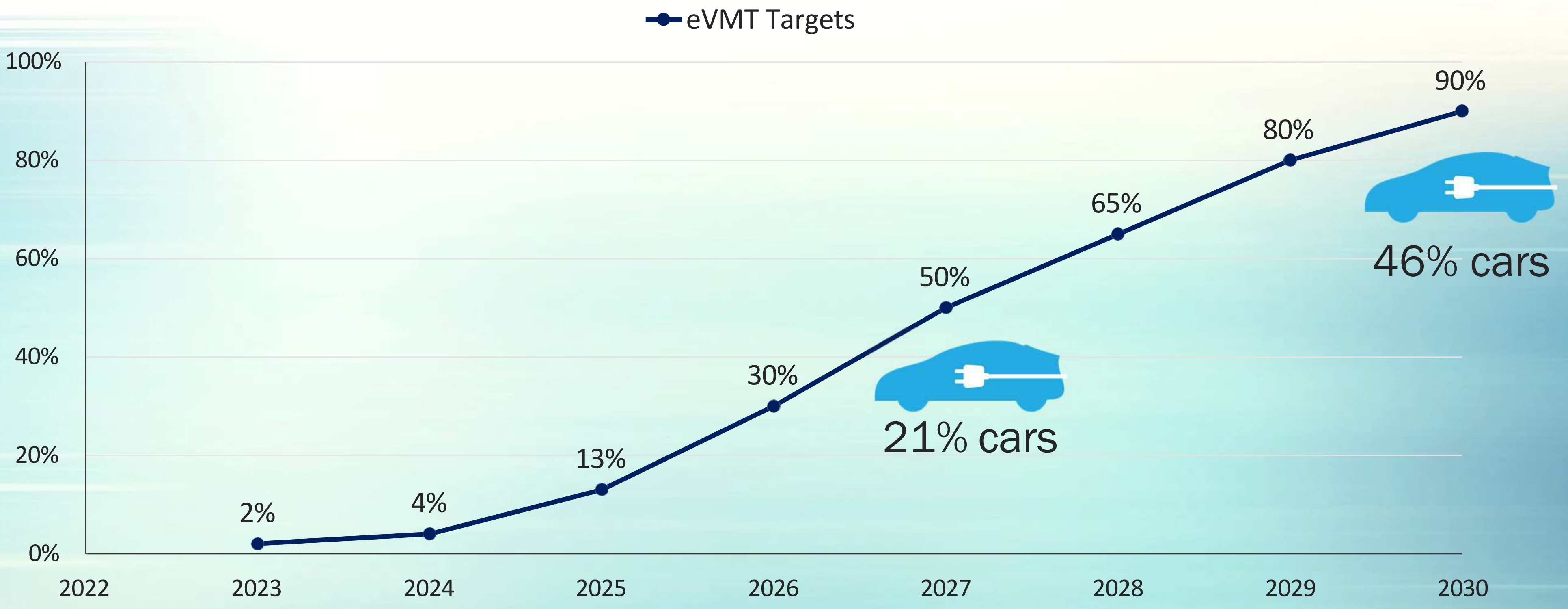
Electrification Targets



CARB

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How to Meet eVMT Targets

$$\% \; eVMT = \frac{Annual\ P3\ miles\ completed\ by\ ZEVs}{Annual\ P3\ miles}$$

Why Period 3 trip segments only?

- To reduce potential for excess deadhead miles by ZEVs

CARB

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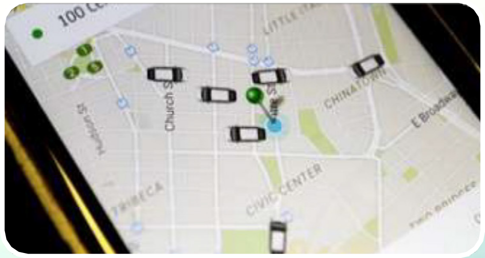
Greenhouse Gas Targets



Grams CO_2 per passenger-mile traveled

Total vehicle CO_2 emissions relative to total passenger miles traveled

CARB

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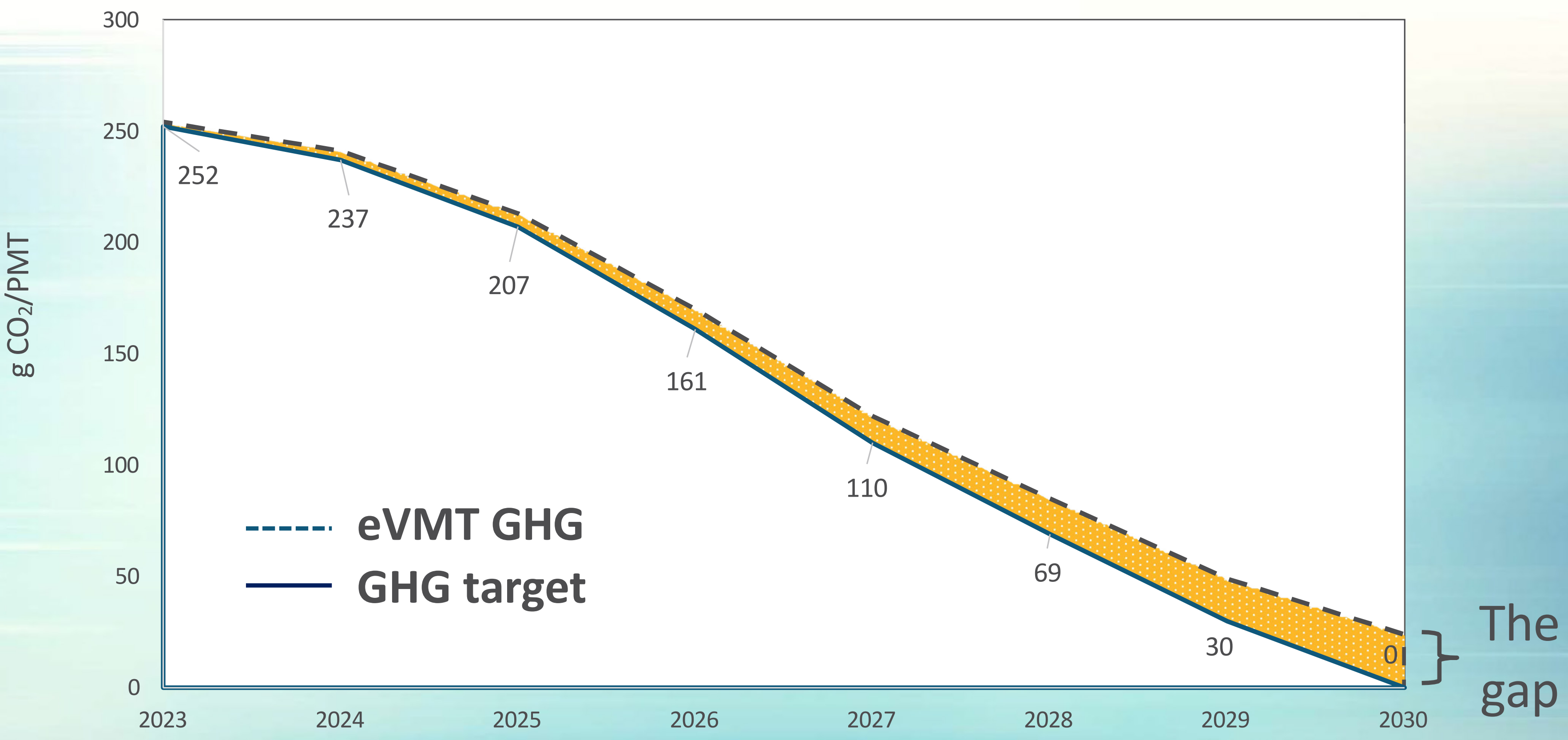
Greenhouse Gas Targets



CARB

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Grams CO_2 per Passenger-Mile Traveled

Encourages lower fuel consumption vehicles, such as hybrids

$$\frac{g\,CO_2}{PMT} = \frac{\sum(VMT_{All} \times CO_2\ factor)_{trip}}{\sum(VMT_{Period\ 3} \times occupancy\ factor)_{trip}}$$

Encourages higher occupancy, pooling

UNITS:
CO_2 factor – g/mi
Occupancy factor – passengers

CARB

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Optional GHG Credits

Transit Connected Trips

- Vehicle trip connected to a mass transit trip
- Verified through purchase of transit ticket on TNC app or other method of verification

Bike or Sidewalk Investment

- Must be part of an approved regional transportation plan
- Construction or repair of a sidewalk

Must be used in the same year they are earned and cannot be banked for use in future years

CARB

(END OF ATTACHMENT)

Exemptions and Flexibility

1. **Small TNC exemption:**

   Applicable to TNCs with annual VMT ≤ 5 million

   Exempt from:

   - Electrification and GHG targets, Annual Compliance Report

   Not exempt from:

   - Continued annual data submittal

2. **Wheelchair accessible vehicle (WAV) trip exemption**

3. **Flexibility:**

   Carry forward over-compliance GHG up to 3 years

(END OF ATTACHMENT)

CARB Role Going Forward

- Support CPUC CMS proceedings
- Monitor infrastructure and costs as directed by Board
  - Charger infrastructure access (e.g., home)
  - Electrification costs (e.g., ZEVs, electricity)
- Evaluate driver impacts
  - Support CPUC's engagement with drivers
  - Research contracts

CARB

(END OF ATTACHMENT)

Thank You

E-mail: cleancars@arb.ca.gov

Website: https://ww2.arb.ca.gov/our-work/programs/clean-miles-standard

CARB

(END OF ATTACHMENT)

9:35 – 10:30am

Questions?

California Public Utilities Commission

(END OF ATTACHMENT)

10:30 – 11:30am

Funding and Financing for ZEV Purchase and Use for TNC Services

Panel Discussion

California Public Utilities Commission

(END OF ATTACHMENT)

10:30 – 11:30am

Funding and Financing - Panelists

- **Raquel Leon** – Air Pollution Specialist and Light-Duty ZEV Purchase Incentives lead, CARB
- **Shrayas Jatkar** – Interagency Policy Specialist for Equity, Climate, and Jobs, CA Workforce Development Board
- **Alan Jenn** – Research Professor and Assistant Director of the Energy Futures Research Center, UC Davis
- **Audrey Neuman** – Senior Transportation Electrification Analyst, CPUC Energy Division

(END OF ATTACHMENT)

10:30 – 11:30am

Questions?

California Public Utilities Commission

(END OF ATTACHMENT)

11:30am – 12:05pm

Low- and moderate-income (LMI) Drivers and Communities

Presentations

California Public Utilities Commission

(END OF ATTACHMENT)

11:30am – 12:05pm

LMI Drivers & Communities - Presentations

- **Dr. Chris Benner**, Professor and Director – Institute for Social Transformation, UC – Santa Cruz
- **Sam Appel**, California State Manager for Climate and Labor Policy, BlueGreen Alliance
- **Jesus Garcia**, Research and Policy Analyst, SEIU Local 721
- **Alvaro Bolainez**, Vice President, Rideshare Drivers United

(END OF ATTACHMENT)

11:30am – 12:05pm

Dr. Chris Benner

Professor and Director – Institute for Social Transformation, UC – Santa Cruz

(END OF ATTACHMENT)

On-demand and On-the-edge:

TNC Drivers, their economic circumstances and the CA Clean Miles Standard Program

Chris Benner, Ph.D.
Prof, of Env. Studies and Sociology
UC Santa Cruz

Presentation to the CPUC
March 8, 2022

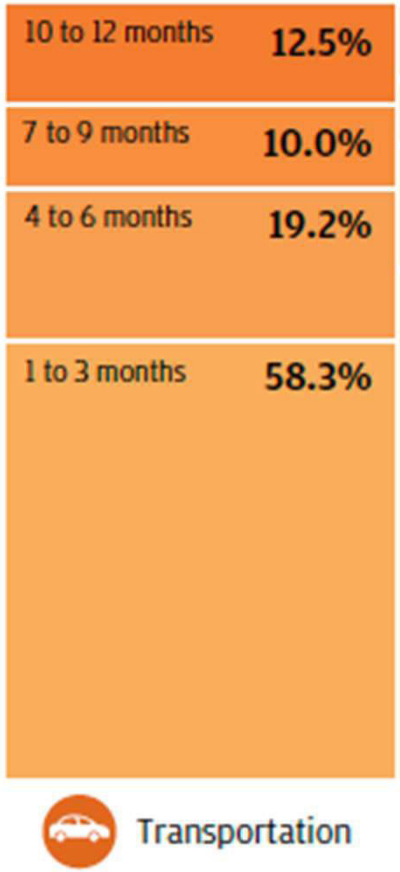
UC SANTA CRUZ | Institute for Social Transformation
INQUIRY WITH IMPACT

(END OF ATTACHMENT)

Which drivers should we be worried about?

- Incomplete data on hours and pay, but still clear that large majority of trips, hours and earnings are accounted for by a minority of drivers for whom the work is full-time and their primary source of income
  - 57% of <u>quarterly</u> earnings from top 10% of drivers (JP Morgan Chase, 2018). Annual earnings even more concentrated
  - In Seattle, in a typical week, the 32% of drivers who are full-time accounted for 55% of all trips. (Parrott & Reich, 2020)
- Our San Francisco study pioneered methodology for gaining representative sample of this core workforce

Percent of drivers, by number of months with earnings



Source: JPMorgan Chase Institute

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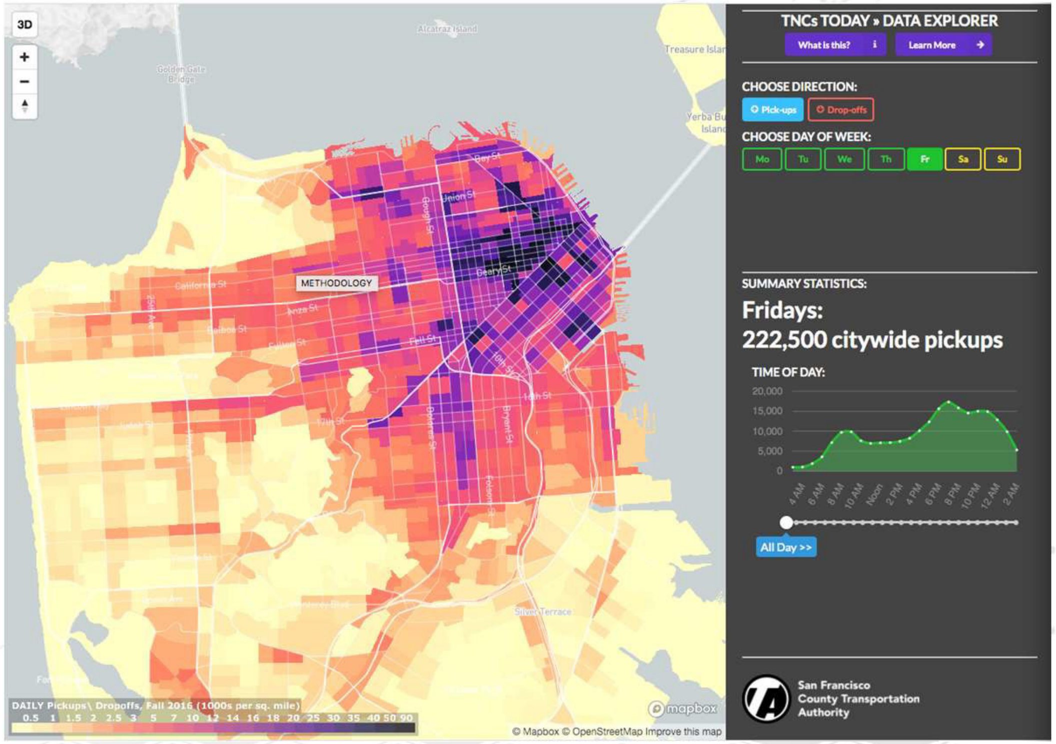
METHODOLOGY

- Survey respondents were recruited through 6 different apps, with recruitment structured to get a representative sample
  - For ride-hailing, survey recruitment varied by time of day, day of the week, and location to match known pick-up location patterns from SF County Transportation Authority data
  - For delivery, survey recruitment was conducted during peak lunch and dinner meal times, spread across 11 different SF neighborhoods
    - Downtown
    - Marina
    - Richmond
    - Sunset
    - Mission Terrace/Excelsior
    - North Beach/ Chinatown/Financial district
    - Glen Park/ Bernal Heights
    - Parkside
    - Noe Valley
    - Mission
    - Castro



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Diverse Workforce

- Predominantly male (86%)
- Diverse race/ethnicities:
  - 29% Asian, 23% Hispanic, 22% White, 12% Black, 13% multi-racial or other
- Majority (56%) foreign-born
- Median age is 40 in ride-hailing and 31 in delivery work
- 28% of ride-hailing and 62% of delivery workers in survey live in SF

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Difficult Economic Circumstances

- 46% support others with their earnings, including 33% supporting children
- 21% have no health insurance, and another 30% use public or public-access health insurance (e.g. Medi-cal, Covered CA)
- 45% couldn’t handle a $400 emergency payment without borrowing
- 15% receive some form of public support (e.g. food stamps, housing assistance)

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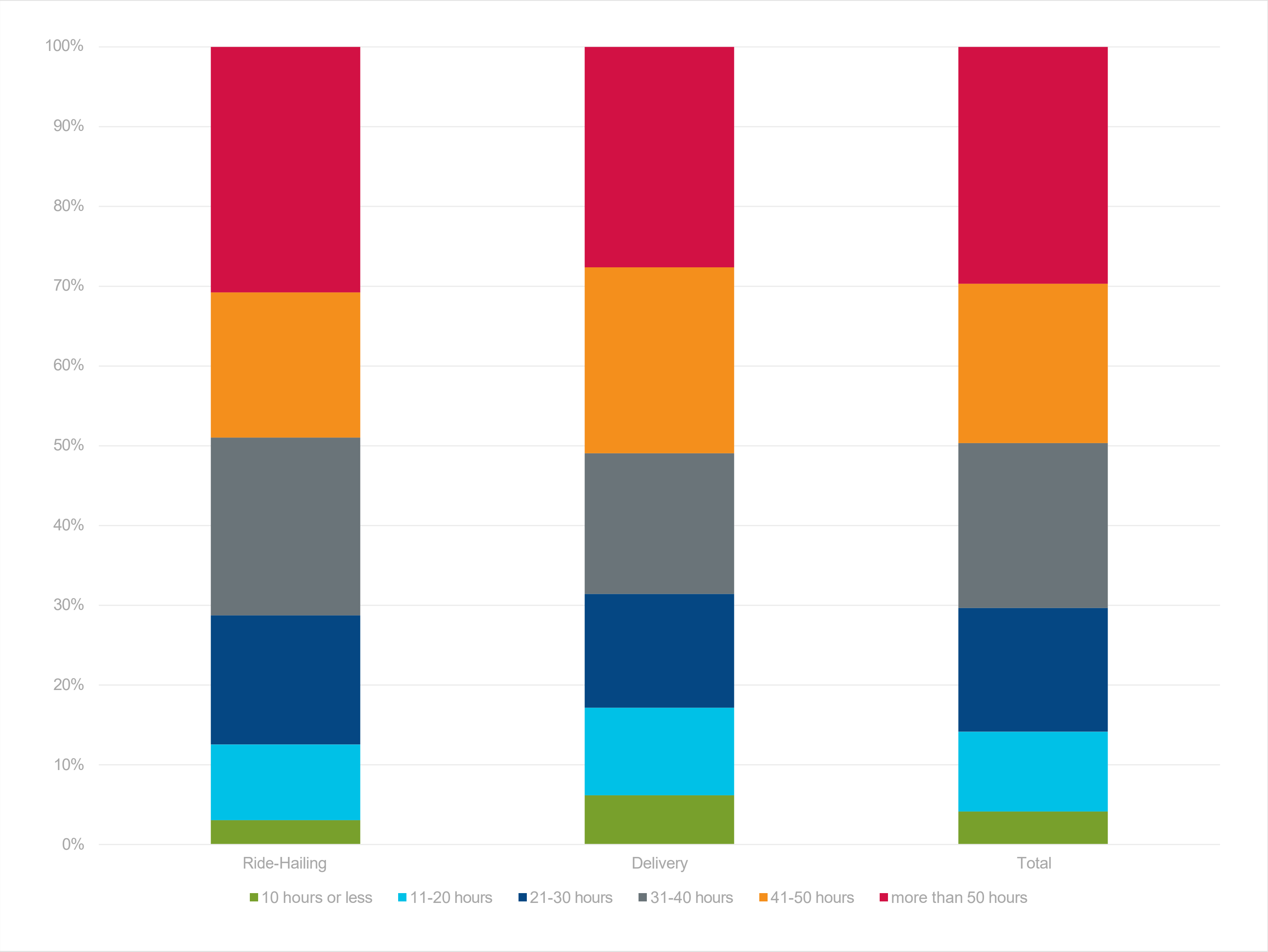
How many hours per week do you work on average for all of these apps?



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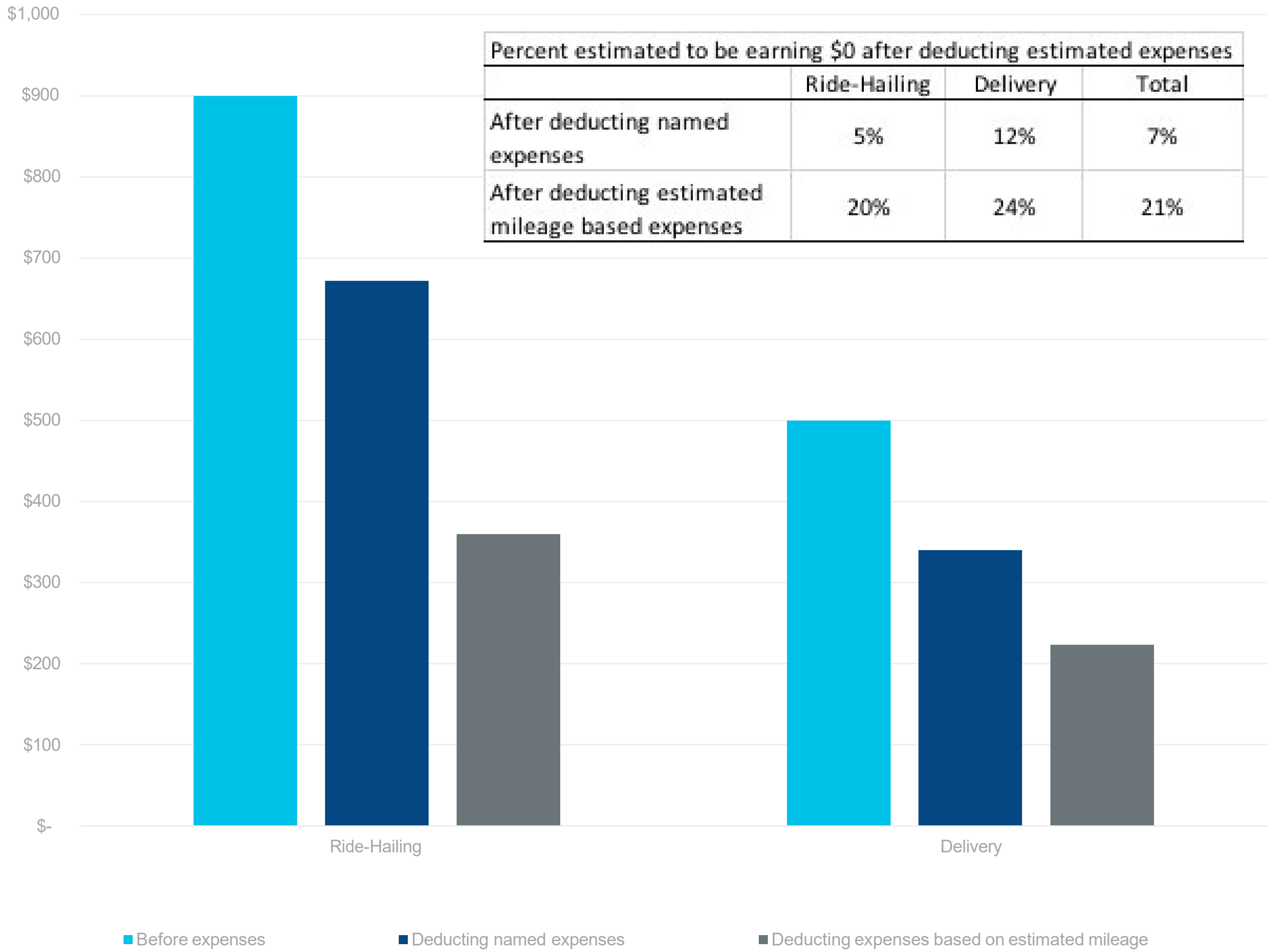
Median weekly earnings, before/after expenses (using two different methods for calculating expenses)



Percent estimated to be earning $0 after deducting estimated expenses			
	Ride-Hailing	Delivery	Total
After deducting named expenses	5%	12%	7%
After deducting estimated mileage based expenses	20%	24%	21%

Institute for
Social Transformation

(END OF ATTACHMENT)

Large portion are likely paid below legal minimum wage

Institute for Social Transformation

(END OF ATTACHMENT)

Implications for CMS

- Most core drivers could not bear costs of new vehicles
- TNC companies are not currently providing adequate compensation, and should not be counted on to administer a driver assistance fund
- Assistance will require targeted outreach to marginalized populations, especially immigrants
- We need much better data linking earnings, hours and VMT
    - Waiting time (P1), dispatch time (P2) and passenger time (P3)

(END OF ATTACHMENT)

Thank you.

UC SANTA CRUZ | Institute for Social Transformation

Chris Benner, Ph.D.
cbenner@ucsc.edu

https://transform.ucsc.edu/

(END OF ATTACHMENT)

11:30am – 12:05pm

Sam Appel

California State Manager for Climate and Labor Policy, BlueGreen Alliance

(END OF ATTACHMENT)

11:30am – 12:05pm

Jesus Garcia & Wendy Knight

Research and Policy Analyst & Research and Policy Coordinator, SEIU Local 721

(END OF ATTACHMENT)

11:30am – 12:05pm

Alvaro Bolainez

Vice President, Rideshare Drivers United

California Public Utilities Commission

(END OF ATTACHMENT)

12:05 – 12:10pm

Pre-Lunch Closing Remarks

California Public Utilities Commission

(END OF ATTACHMENT)

12:10 – 1:00pm

Lunch Break

Return to the WebEx by 1 pm (PT)

California Public Utilities Commission

(END OF ATTACHMENT)

1:00 – 1:05pm

Low- and moderate-income (LMI) Drivers and Communities

Break-out Group Discussions

California Public Utilities Commission

(END OF ATTACHMENT)

1:05 – 1:40pm

Break-out Discussion – Low- and Moderate-Income (LMI) Drivers and Communities

1. How should the Commission define and identify low- and moderate-income (LMI) drivers and individuals for the purposes of CMS implementation and monitoring of impact? There were a lot of specific suggestions in the OIR comments, but not a lot of agreement. Please expand on why your proposed definition offers the best opportunity for monitoring impacts on low- and moderate-income drivers.
2. How should the Commission "ensure minimal negative impact on low-income and moderate-income drivers"?
   a. What part should TNCs play?
   b. What financial supports or incentives have TNCs provided to drivers in the past, and what are lessons learned from those programs?
   c. What strategies do TNC drivers hope to see in CMS implementation to minimize negative impacts on low- and moderate-income drivers?

(END OF ATTACHMENT)

1:05 – 1:40pm

Break-out Discussion – Low- and Moderate-Income (LMI) Drivers and Communities (cont'd)

3. What is the impact of unpaid time on TNC drivers' compensation, including charging time, and how should the Commission consider this impact in the context of CMS?

4. What role should your organization, Community Based Organizations, or academics play in supporting ongoing engagement and understanding of the impacts on LMI drivers, such as through surveys, working groups, or another forum?
    a. What new data does the Commission need to collect to evaluate the impact of CMS on low- and moderate-income drivers?
    b. Are there additional resources or outreach the Commission should consider to support engagement with communities whose primary language is not English? Translation services or other types of resources?

(END OF ATTACHMENT)

1:05 – 1:40pm

Break-out Discussion – Low- and Moderate-Income (LMI) Drivers and Communities (cont'd)

5. How do drivers approach accessing an EV for use on a TNC platform? What additional resources or information are needed?

6. How can the Commission and CPUC Staff engage with TNC drivers in this proceeding and during program implementation? What types of outreach and engagement will be effective for TNC drivers?

(END OF ATTACHMENT)

1:40 – 2:00pm

Low- and moderate-income (LMI) Drivers and Communities

Group Reconvene

(END OF ATTACHMENT)

2:00 – 2:20pm

Regulatory Framework for the Clean Miles Standard

GHG Emissions Reduction Plans, Compliance and Enforcement Framework

California Public Utilities Commission

(END OF ATTACHMENT)

2:00 – 2:20pm

Renewables Portfolio Standard

Michael Baltar, CPUC Energy Division

(END OF ATTACHMENT)

2:00 – 2:20pm

Renewables Portfolio Standard (RPS) basics

- California's RPS is a statutory market-based program designed to induce all electric load-serving entities (LSEs) to procure increasing amounts of renewable energy
- RPS compliance is measured in terms of renewable energy credits (RECs):
  1 REC = 1 MWh of RPS-eligible electricity generated
- Years are grouped into multi-year Compliance Periods (CPs) with compliance assessed at the CP level
- RPS works by requiring LSEs to procure and retire RECs proportional to their retail sales. This proportion gradually rises, driving increased renewable energy procurement

	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6 and beyond
Years	2011-2013	2014-2016	2017-2020	2021-2024	2025-2027	2028-2030 and beyond
RPS %	20%	25%	33%	44%	52%	60%

(END OF ATTACHMENT)

2:00 – 2:20pm

RPS Regulatory Frameworks

- The CPUC's RPS regulatory activities are focused on ensuring proper planning, verifying compliance with RPS requirements, and penalizing shortfalls if necessary.
- Forward looking: **Procurement Plans**
  - Annual
  - Qualitative review
- Backwards looking: **Compliance Reports**
  - Both Annual and at the end of a Compliance Period
  - Quantitative review, penalty assessment
- Procurement Plans and Compliance Reports are not linked

(END OF ATTACHMENT)

2:00 – 2:20pm

RPS Procurement Plan Process

1. ANNUAL PLAN SUBMISSION

LSEs submit draft annual RPS Plans based on the statutory requirements as articulated in the year's Assigned Commissioner Ruling (ACR)

2. CPUC REVIEW

LSE draft Plans are reviewed against the ACR requirements

3. DRAFT PLAN DECISION

ALJs issue a Proposed Decision, accepting Plans or requiring modifications

4. PLAN REVISION

LSEs have 30 days to make the modifications required by the PD and resubmit their plans

5. CPUC REVIEW

Final Plan submissions are checked to verify that LSEs have corrected the issues identified

6. PLAN IMPLEMENTATION

LSEs implement accepted Plans. ALJs develop a new ACR based on experience from the previous cycle

(END OF ATTACHMENT)

2:00 – 2:20pm

RPS Program Compliance Requirements

- Compliance with California's RPS program is determined by the amount of RECs procured for compliance within multi-year compliance periods by an LSE. Procurement is measured against three criteria:
  - **Procurement Quantity Requirement** (PQR): LSEs must meet the overall percentage requirements for RECs based on retail sales
  - **Long-Term Contracting Requirement**: LSEs must procure 65 percent of their Procurement Quantity Requirement from long-term contracts, defined as contracts with terms of 10 or more years
  - **Portfolio Balance Requirement** (PBR): RECs are classified into three different Portfolio Content Categories (PCC) types, and LSEs are required to balance their portfolios in each compliance period by meeting various minimum and maximum quantities for the types

For more information: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-compliance-rules-and-process/60-percent-rps-procurement-rules

(END OF ATTACHMENT)

2:00 – 2:20pm

RPS Annual Compliance Review

- For RPS compliance, retail sellers must submit a **Preliminary Annual Report** to CPUC Energy Division by August 1 each year.
  - This annual report details all RPS procurement for the applicable Compliance Period and estimates any shortfalls in PQR, PBR, and long-term contracting requirements.

REPORT SUBMITTAL

The CPUC provides templates of the Preliminary Annual Report for LSEs to fill and submit

CPUC REVIEW

Staff assess LSE reports for accuracy, completeness, and progress towards meeting PQR, PBR, and long-term requirements for the CP

SB 155 NOTIFICATION

Staff draft notifications to any LSEs deemed 'at risk' of failing to meet compliance requirements along with recommended corrective actions

(END OF ATTACHMENT)

2:00 – 2:20pm

RPS End of Compliance Period Review

- LSEs must file a **Final RPS Compliance Report** within 30 days of the California Energy Commission (CEC) issuing its RPS Procurement Verification Report for the applicable Compliance Period.
  - The CEC's Verification Report is based on WREGIS data and not tied to a set schedule – it may be released several years after the CP ends.

CEC VERIFICATION REPORT

Released by the CEC upon verifying LSEs' claimed RPS procurement

FINAL RPS COMPLIANCE REPORT

LSEs submit final reports within 30 days of the CEC report release

CPUC REVIEW

In addition to Annual criteria, Staff review LSE contracts to verify REC retirement dates and PCC categorization

COMPLIANCE DETERMINATION

LSEs sent Compliance Determination letters, with any RPS shortfalls subject to a $50/REC penalty

(END OF ATTACHMENT)

2:00 – 2:20pm

Integrated Resource Planning

James McGarry, CPUC Energy Division

California Public Utilities Commission

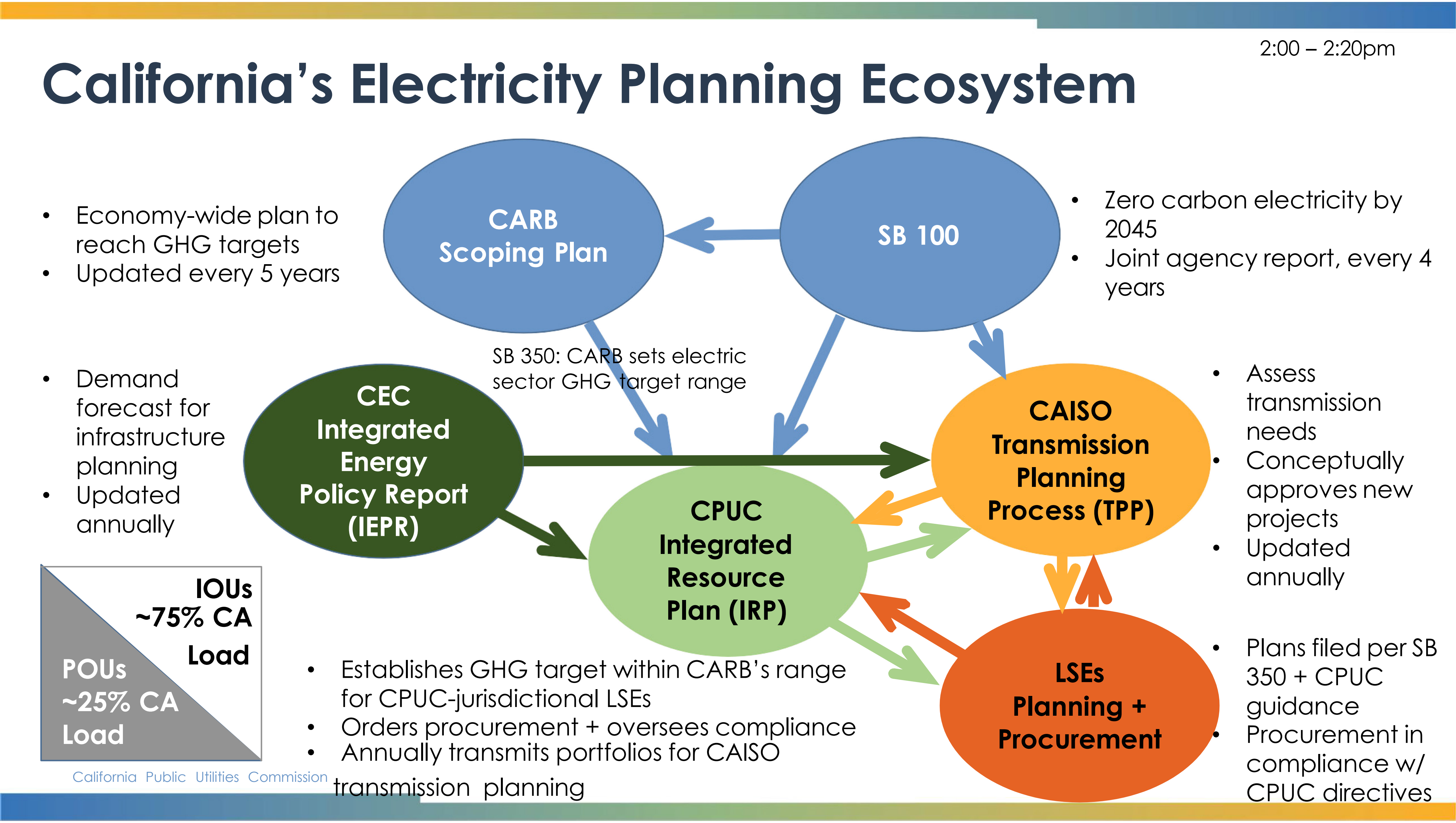
(END OF ATTACHMENT)

2:00 – 2:20pm

Integrated Resource Planning (IRP) in California Today

- The objective of integrated resource planning is to reduce the cost of achieving GHG reductions and other policy goals by looking across individual load serving entity (LSE) boundaries and resource types to identify solutions to reliability, cost, or other concerns that might not otherwise be found.
- Goal of the 2019-2021 IRP cycle was to ensure that the electric sector is on track to help California reduce economy-wide GHG emissions 40% from 1990 levels by 2030, per SB 32, and to explore how achievement of SB 100 2045 goals could inform IRP resource planning in the 2020 to 2032 timeframe.
- The IRP process has two parts:
  - First, it identifies an optimal portfolio for meeting state policy objectives and encourages the LSEs to procure towards that future.
  - Second, it collects and aggregates the LSEs' collective efforts for planned and contracted resources to compare the expected system to the identified optimal system. The CPUC considers a variety of interventions to ensure LSEs are progressing towards an optimal future.

(END OF ATTACHMENT)



(END OF ATTACHMENT)

2:00 – 2:20pm

Regulated Entities' Filings

Filed by Load Serving Entities (LSEs)

(END OF ATTACHMENT)

2:00 – 2:20pm

Filing Requirements

- LSE IRP filings are the vehicle by which the CPUC and stakeholders gain insight into individual LSEs' plans for meeting state goals
- To facilitate the filing of useful, appropriate, and complete information by LSEs, IRP staff provide LSEs with standardized tools, instructions, and templates (aka, IRP "filing requirements documents")
  - LSEs are assigned load forecasts and GHG targets/benchmarks to use in planning
- The September 1, 2020 filings included LSE information on:
  - GHG reductions
  - reliability
  - imports/exports
  - impacts on disadvantaged communities
  - costs
  - other elements of long-term resource planning

(END OF ATTACHMENT)

2:00 – 2:20pm

Filing Requirements Documents: Purpose

- **Narrative Template (NT)**: To describe how LSEs approached the process of developing its plan, present the result of analytical work, and demonstrate to the Commission and the stakeholders the LSE's action plans
- **Resource Data Template (RDT)**: To collect planned and existing monthly LSE contracting data, including for future resources which do not exist yet. Provides a snapshot of the LSE contracted and planned monthly total energy and capacity forecast positions over a ten year look ahead period
- **Clean System Power (CSP) Calculator**: To use in estimating the GHG and criteria pollutant emissions of LSE portfolios and verify that LSE portfolios achieve assigned GHG planning benchmarks

(END OF ATTACHMENT)

2:00 – 2:20pm

Evaluation of LSE Filings

- Narrative Template (NT)
  - Commission staff utilized a scorecard system to conduct a qualitative review of LSE NTs to determine whether each LSE adequately satisfied the requirements of each NT section established by the Commission
  - NT sections could receive scores of "exemplary," "adequate," or "deficient." LSEs receiving deficient scores were required to re-submit those sections
- Resource Data Template (RDT)
  - Staff built the RDT Error Checking, Aggregation and Reallocation Tool (RECART), which used Python code to aggregate, error check, and analyze LSE RDT filings
  - RECART compiled energy and capacity under contract, contracted resources by technology type and LSE, and aggregated new resources that were in development or planned future purchases
  - LSEs were contacted when errors were found in RECART and re-submitted RDT filings, where necessary
- Clean System Power Calculator (CSP)
  - Staff conducted a quantitative review of each LSE's CSP Calculator to determine that they achieved their GHG benchmarks and followed all calculator instructions
  - LSEs that did not meet their targets or did not follow instructions were contacted for re-submission

(END OF ATTACHMENT)

2:00 – 2:20pm

Observations and Lessons Learned

- LSEs collectively filed plans that were generally consistent in terms of size and resource composition with the optimal portfolio developed by the Commission in part 1 of the cycle
- Commission staff spent considerable time and effort iterating with individual LSEs through up to six re-submission requests from September 2020 through February 2021 to correct and clarify contract information provided by the LSEs
- Provide clear templates and instructions for LSE filings
- Provide clear standards for how templates will be evaluated including guidance on what constitutes an error or incomplete filing
- Design filing templates with the end use for the requested information in mind so that it is clear how plan evaluation will lead to the final Commission decision

(END OF ATTACHMENT)

2:20 – 2:25pm

GHG Emissions Reduction Plans

Break-out Group Discussions

California Public Utilities Commission

(END OF ATTACHMENT)

2:25 – 2:55pm

Break-out Discussion – GHG Emissions Reduction Plans

1. What are the potential parallel elements from the IRP and RPS Plans that could be used to inform the development of the GHG Emissions Reduction Plans?

2. Are there are any elements from the GHG Emissions Reduction Plan as described in the OIR that are potentially missing? Are there elements that could be addressed in a later phase?

(END OF ATTACHMENT)

2:25 – 2:55pm

Break-out Discussion – GHG Emissions Reduction Plans (cont'd)

3. How should the Commission balance obtaining adequate GHG Emissions Reduction Plans without being too prescriptive when creating the plan template?
    a. How prescriptive should a GHG Emissions Reduction Plan template be?
    b. What template elements are helpful to regulated entities? To the public?
    c. How should the Commission use the GHG Emissions Reduction Plans to help ensure minimal negative impact on low- and moderate-income drivers? What level of detail do labor advocates recommend requiring in this regard?
4. What strategies do regulated entities anticipate including in their GHG Emissions Reduction Plans? How might these differ between TNCs and AV TCPs?

California Public Utilities Commission

(END OF ATTACHMENT)

2:55 – 3:10pm

GHG Emissions Reduction Plans

Group Reconvene

California Public Utilities Commission

(END OF ATTACHMENT)

3:10 – 3:25pm

Afternoon Break

Return to the WebEx by 3:25 pm (PT)

California Public Utilities Commission

(END OF ATTACHMENT)

3:25 – 3:30pm

Regulatory Framework

Break-out Group Discussions

California Public Utilities Commission

(END OF ATTACHMENT)

3:30 – 4:00pm

Break-out Discussion – Regulatory Framework

1. Both the IRP and RPS contain qualitative review for the LSEs' submitted plans. What are the potential challenges with a qualitative review? What are the potential benefits?
   a. What should be considered an "exemplary," "adequate," "deficient," "viable," or "complete" GHG Emissions Reduction Plan?

2. What should the structure for submitting, reviewing, and approving plans look like? Should any elements of GHG Emissions Reduction Plan be considered by the Commission as opposed to Staff?

(END OF ATTACHMENT)

3:30 – 4:00pm

Break-out Discussion – Regulatory Framework (cont'd)

3. Are there quantitative tools available to assess the viability of strategies included in a regulated entity's GHG Emissions Reduction Plan? What are the pros and cons of using a quantitative evaluation tool?

4. Considering the IRP, RPS, or other models, what are some the benefits and challenges with different types of enforcement mechanisms that the Commission should consider?

(END OF ATTACHMENT)

4:00 – 4:15pm

Regulatory Framework

Group Reconvene

California Public Utilities Commission

(END OF ATTACHMENT)

4:15 – 4:30pm

Review of Schedule

California Public Utilities Commission

(END OF ATTACHMENT)

California Public Utilities Commission

Terra Curtis, Transportation Policy Supervisor
Stephanie Seki, Lead Analyst

CleanMiles@cpuc.ca.gov

(END OF ATTACHMENT)